QDD-400GB-AEC-2-5M-MX-C

Mellanox® Compatible TAA 400GBase-AEC QSFP-DD to QSFP-DD Active Electrical Cable (AEC, 2.5m, CMIS 5.2)

Features:

- Compliant with QSFP-DD MSA and CMIS 5.2
- Supports 8x56G PAM4 Electrical Data Rates
- Enables 400Gbps Transmission
- Wire Gauge: 30AWG
- Typical Power Consumption: 7.5W Per End
- Single 3.3V Power Supply
- Operating Temperature Range: 0 to 70 Celsius
- RoHS Compliant and Lead-Free

Applications:

- 400GBase Ethernet

Product Description

This is a Mellanox® compatible 400GBase-AEC QSFP-DD to QSFP-DD active electrical cable that operates over active copper with a maximum reach of 2.5m (8.2ft). It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. This active electrical cable is TAA (Trade Agreements Act) compliant, and is built to comply with MSA (Multi-Source Agreement) standards. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

ProLabs' transceivers are RoHS compliant and lead-free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S.-made or designated country end products.")

Rev. 011926

General Specifications

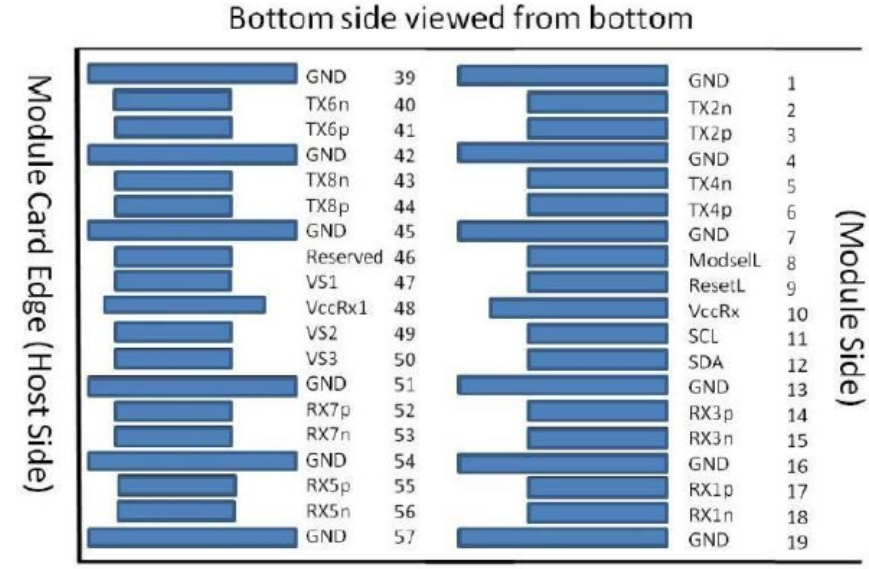
Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Storage Temperature	Tstg	-40		80	°C	
Operating Case Temperature	Tc	0		70	°C	
Power Supply Not Damage Voltage	V	-0.5		3.6		
Relative Operating Humidity	RH	0		85	%	
Power Supply Working Voltage	V	3.135	3.3	3.465		
Bit Rate	Gbps		400			

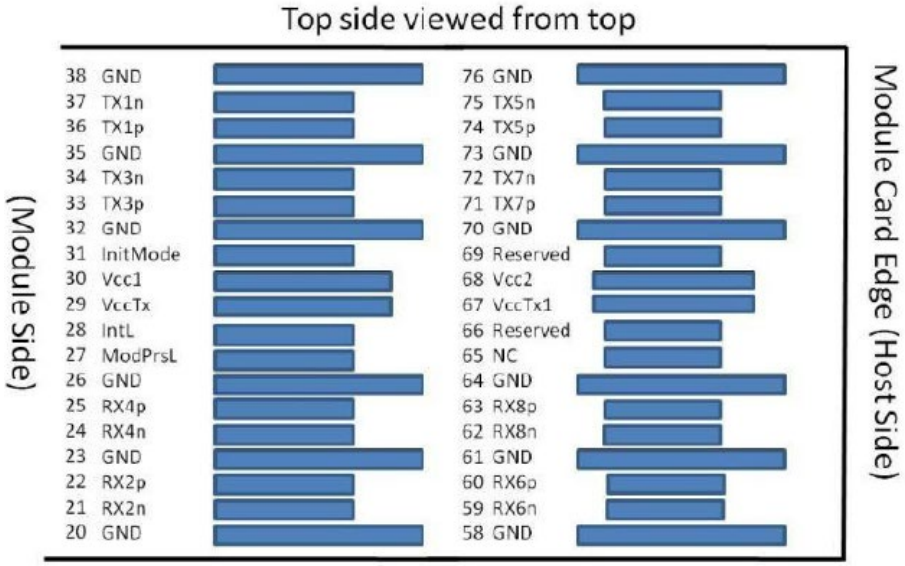
Pin Descriptions

Pin	Symbol	Logic	Name/Description	Notes
1	GND		Module Ground.	
2	Tx2-	CML-I	Transmitter Inverted Data Input.	
3	Tx2+	CML-I	Transmitter Non-Inverted Data Input.	
4	GND		Module Ground.	
5	Tx4-	CML-I	Transmitter Inverted Data Input.	
6	Tx4+	CML-I	Transmitter Non-Inverted Data Input.	
7	GND		Module Ground.	
8	ModSelL	LVTTL-I	Module Select.	
9	ResetL	LVTTL-I	Module Reset.	
10	VccRx		+3.3V Receiver Power Supply.	
11	SCL	LVCMOS-I/O	2-Wire Serial Interface Clock.	
12	SDA	LVCMOS-I/O	2-Wire Serial Interface Data.	
13	GND		Module Ground.	
14	Rx3+	CML-O	Receiver Non-Inverted Data Output.	
15	Rx3-	CML-O	Receiver Inverted Data Output.	
16	GND		Module Ground.	
17	Rx1+	CML-O	Receiver Non-Inverted Data Output.	
18	Rx1-	CML-O	Receiver Inverted Data Output.	
19	GND		Module Ground.	
20	GND		Module Ground.	
21	Rx2-	CML-O	Receiver Inverted Data Output.	
22	Rx2+	CML-O	Receiver Non-Inverted Data Output.	
23	GND		Module Ground.	
24	Rx4-	CML-O	Receiver Inverted Data Output.	
25	Rx4+	CML-O	Receiver Non-Inverted Data Output.	
26	GND		Module Ground.	
27	ModPrsL	LVTTL-O	Module Present.	
28	IntL/RxLOSL	LVTTL-O	Interrupt. Optionally configurable as RxLOSL via the management interface.	
29	VccTx		+3.3V Transmitter Power Supply.	
30	Vcc1		+3.3V Power Supply.	
31	LPMode/TxDis	LVTTL-I	Initialization Mode. Optionally configurable as TxDis via the management interface.	

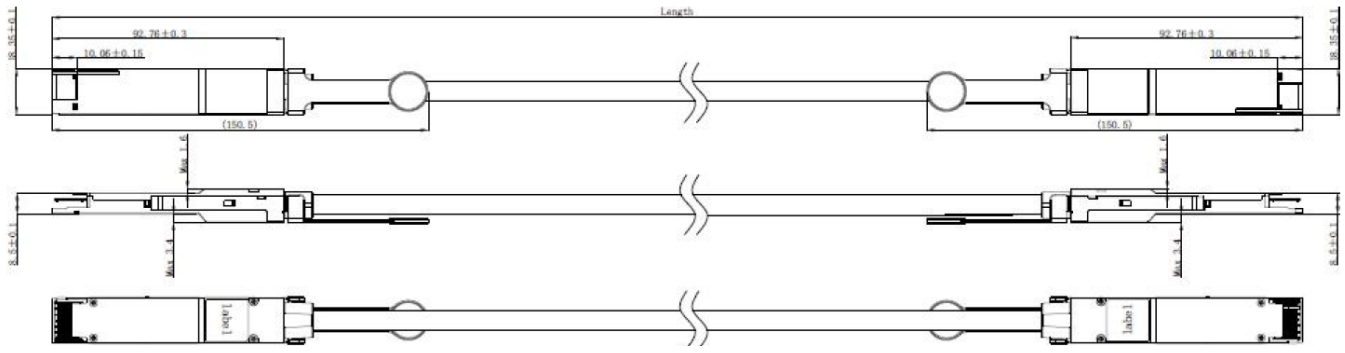
32	GND		Module Ground.	
33	Tx3+	CML-I	Transmitter Non-Inverted Data Input.	
34	Tx3-	CML-I	Transmitter Inverted Data Input.	
35	GND		Module Ground.	
36	Tx1+	CML-I	Transmitter Non-Inverted Data Input.	
37	Tx1-	CML-I	Transmitter Inverted Data Input.	
38	GND		Module Ground.	
39	GND		Module Ground.	
40	Tx6-	CML-I	Transmitter Inverted Data Input.	
41	Tx6+	CML-I	Transmitter Non-Inverted Data Input.	
42	GND		Module Ground.	
43	Tx8-	CML-I	Transmitter Inverted Data Input.	
44	Tx8+	CML-I	Transmitter Non-Inverted Data Input.	
45	GND		Module Ground.	
46	Reserved		For Future Use.	
47	VS1		Module Vendor-Specific 1.	
48	VccRx1		+3.3V Receiver Power Supply.	
49	VS2		Module Vendor-Specific 2.	
50	VS3		Module Vendor-Specific 3.	
51	GND		Module Ground.	
52	Rx7+	CML-O	Receiver Non-Inverted Data Output.	
53	Rx7-	CML-O	Receiver Inverted Data Output.	
54	GND		Module Ground.	
55	Rx5+	CML-O	Receiver Non-Inverted Data Output.	
56	Rx5-	CML-O	Receiver Inverted Data Output.	
57	GND		Module Ground.	
58	GND		Module Ground.	
59	Rx6-	CML-O	Receiver Inverted Data Output.	
60	Rx6+	CML-O	Receiver Non-Inverted Data Output.	
61	GND		Module Ground.	
62	Rx8-	CML-O	Receiver Inverted Data Output.	
63	Rx8+	CML-O	Receiver Non-Inverted Data Output.	
64	GND		Module Ground.	
65	NC		Not Connected.	
66	Reserved		For Future Use.	
67	VccTx1		+3.3V Transmitter Power Supply.	
68	Vcc2		+3.3V Power Supply.	
69	Reserved		For Future Use.	
70	GND		Module Ground.	
71	Tx7+	CML-I	Transmitter Non-Inverted Data Input.	
72	Tx7-	CML-I	Transmitter Inverted Data Input.	
73	GND		Module Ground.	
74	Tx5+	CML-I	Transmitter Non-Inverted Data Input.	
75	Tx5-	CML-I	Transmitter Inverted Data Input.	
76	GND		Module Ground.	

Electrical Pin-Out Details





Mechanical Specifications



Unit: mm

About ProLabs

Our extensive experience comes as standard. For over 20 years ProLabs has delivered optical connectivity solutions that give our customers freedom and choice through our ability to provide seamless interoperability. At the heart of our company is the ability to provide state-of-the-art optical transport and connectivity solutions that are compatible with more than 100 optical switching and transport platforms.

A Complete Portfolio of Network Solutions

ProLabs is focused on innovations in optical transport and connectivity. The combination of our knowledge of optics and networking equipment enables ProLabs to be your single source for optical transport and connectivity solutions from 100Mb to 1.6T while providing innovative solutions that increase network efficiency. We provide the optical connectivity expertise that is compatible with and enhances your switching and transport equipment.

The Trusted Partner

Customer service is our number one value. ProLabs has invested in people, labs and manufacturing capacity to ensure compatible products, and immediate answers to your questions. With Engineering and Manufacturing offices in the U.K. and U.S. augmented by field offices throughout the U.S., U.K. and Asia, ProLabs is able to be our customers best advocate 24 hours a day.

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